

EJ/K

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/776,613	MAYAMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Long Nguyen	2816	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 12/20/05.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Scott Schulte (Registration No. 44,325) on 2/6/06.

The application has been amended as follows:

#### **In The Claims**

In claim 8, line 5, "on operation of" has been changed to --an operation state of--.

#### **Reason For The Above Change**

The above change has been made to correct a minor informality in the claim.

### **REASONS FOR ALLOWANCE**

2. Claims 1-18 are allowed.

Claim 1 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a first current flowing to the gate drive circuit with the recited connections and operations set forth therein.

Claims 3, 5, 7, 9, 11, 13, 15 and 17 are allowed because they depend on claim 1.

Claim 2 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a first current flowing to the protection circuit with the recited connections and operations set forth therein.

Claims 6, 10 and 14 are allowed because they depend on claim 2.

Claim 4 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a current flowing to the overcurrent detection circuit with the recited connections and operations set forth therein.

Claim 12 is allowed because it depends on claim 4.

Claim 8 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a current flowing to the overheat detection circuit with the recited connections and operations set forth therein.

Claim 16 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a current flowing to the a current limitation circuit with the recited connections and operations set forth therein.

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Claim 18 is allowed because the prior art of record fails to disclose or suggest a circuit including, in combination with other limitations, an input circuit for detecting an operation state of an external switch, and a first current blocking element for blocking, in response to the input circuit detecting the operation state of the external switch as being OFF, a current flowing to the control sections with the recited connections and operations set forth therein.

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Thursday from 8:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 6, 2006



**LONG NGUYEN  
PRIMARY EXAMINER**